

Monitor Series

■ Careful acoustic design and the use of advanced materials contribute to the exceptional music fidelity and speech intelligibility exhibited by the Mackie Industrial MR5S (black) and MR5SW (white) two-way speaker systems.

■ The shielded low-frequency driver's carbon fiber diaphragm remains extremely rigid at high power levels, producing a linear response and low distortion. The cone is fitted with a durable foam surround and treated to resist moisture. The high-frequency section features a 105° x 105° constant directivity horn with a built-in mechanical phase equalizer. The horn is driven by a Ferrofluid® cooled, 0.75" soft dome tweeter.

■ The system is nominally crossed over at 2.5kHz by a 12 dB/octave network, which uses markedly lower (than conventional) inductance values in series with the woofer. This design reduces sound delays associated with high inductance values and provides excellent low frequency transient response. The high-pass section is corrected for optimum performance of the CD horn and is protected with a circuit based on a low-value/low-mass filament resistor that smoothly limits the power sent to the tweeter driver.

■ All components are housed in a vented enclosure formed from semi-expanded polystyrene foam that is extremely strong, lightweight and weather resistant. Threaded metal sockets are molded into the cabinet to facilitate quick, safe deployment of the MR5S, as a single unit or in arrays, using specially designed accessory mounting hardware.

■ The MR5S is a part of Mackie Industrial's Monitor Series, which includes two-way constant directivity, compact speakers in easily installed enclosures.

■ This Mackie Industrial product is covered by an exclusive, one-time, NO FAULT repair policy in addition to a five year limited warranty.

Compact Two-Way Speaker



Features

- 5" high-efficiency carbon fiber woofer
 - 105° x 105° constant directivity horn with Ferrofluid® cooled, 0.75" soft dome tweeter
 - Built-in, LICC low inductance passive crossover with high frequency dynamic protection
 - Lightweight, UV/weather resistant, high density polystyrene, trapezoidal shaped enclosure for multiple applications and minimum visual intrusion
 - Integrated mounting points for use with optional mounting hardware
 - Exclusive Mackie Industrial — one-time, NO FAULT repair policy
 - Five year limited warranty
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- Foreground/Background Music
 - Distributed Speech Reinforcement
 - AV Production/Playback
 - Near-field Monitoring

MR5S Compact Two-Way Speaker

Specifications

System

Freq. Range (-10dB):	65Hz–20kHz
Freq. Response (-3dB):	100Hz–19kHz
Horz. Coverage Angle (-6dB):	105° averaged 800Hz to 16kHz
Vert. Coverage Angle (-6dB):	105° averaged 800Hz to 16kHz
Directivity Factor; Q (DI):	6.3 (8.0) averaged 800Hz to 16kHz
System Sensitivity ¹ :	87dB, 1W @ 1m
Rated Maximum SPL:	112 dB, @ 1m
System Input Power Rating ² :	175W IEC; 700W Peak
System Nominal Impedance:	4Ω
Recommended Amplifier ³ :	250W
HF Protection:	Dynamic
Crossover:	2.5kHz, 12 dB/Octave

Transducers

Low-Frequency:	5" (130mm) carbon fiber woofer with 1" (25mm) coil
High-Frequency:	Horn loaded 0.75" (19mm) dome tweeter, Ferrofluid cooled

Physical

Enclosure:	45° back angles, high density polystyrene
Attachment Inserts:	2 points M6 threaded on back 2 points 3/8" threaded on top and bottom
Color:	Matte black, white (MR5SW), scratch resistant paint,
Grille:	Matching perforated steel grille
Input Connectors:	Gold-plated banana jacks
Dimensions (HxWxD):	10.32" x 7.17" x 6.57" (262mm x 182mm x 167mm)
Net Weight:	8.6 lb. (3.9 kg)

Options

MA 3-5, MA 3-5W	Articulated surface mount hardware, black (W- white)
MA 5-6	Plate for suspending 4 clustered speakers, black
MA 5-7	Hardware for suspending and tilting 4 clustered speakers, black
MA 5-9, MA 5-9W	U-bracket, black (W-white)
MA-7B, MA-7W	Wall-mount support bracket (B-black, W-white)

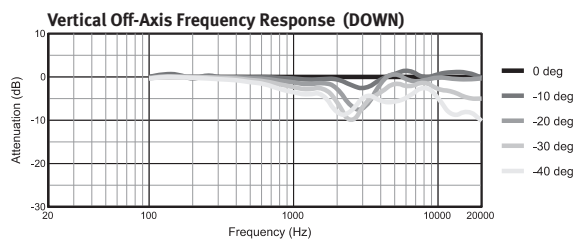
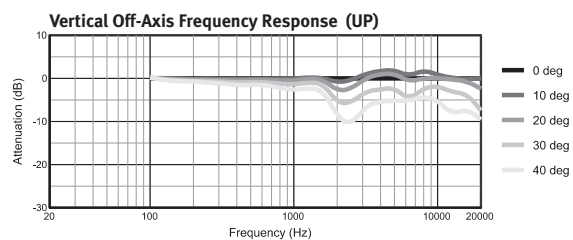
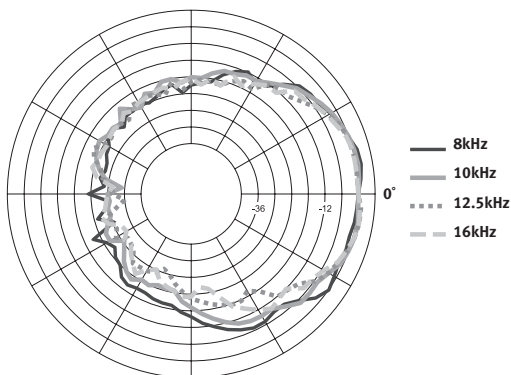
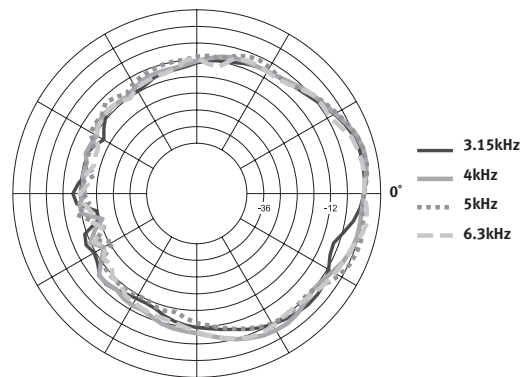
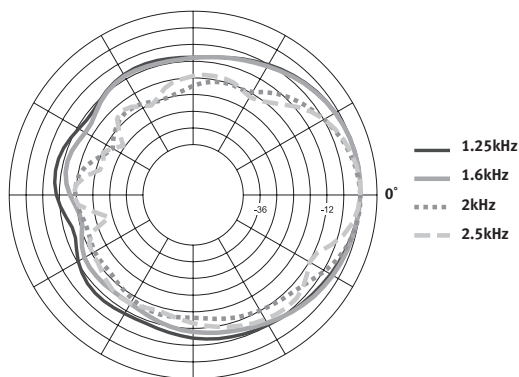
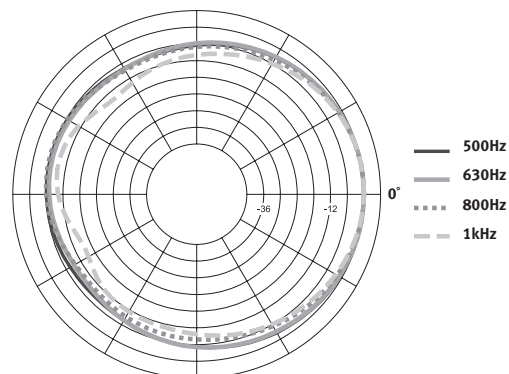
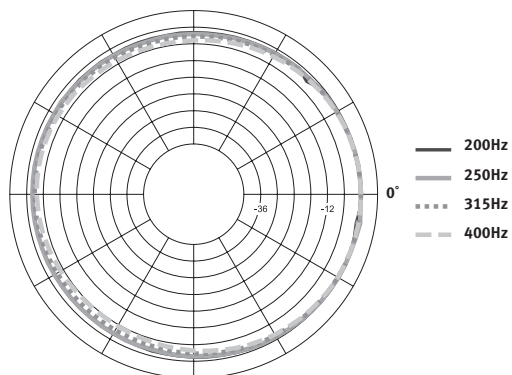
¹ Measured on axis in the far field with 1 watt (2.00 V RMS, 4) input and referenced to 1 meter distance using the inverse square law. Listed sound pressure represents an average from 300Hz to 3kHz.

² IEC Spectrum, Peak for 2 hours with +4.5 dB crest factor.

³ Recommended Amplifier is a power capability value that should be taken as a guide.

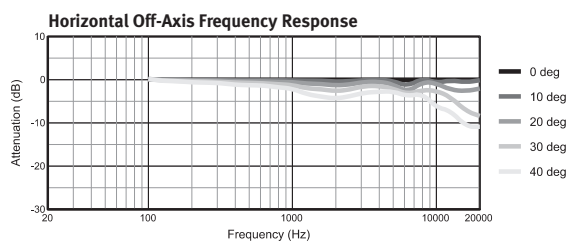
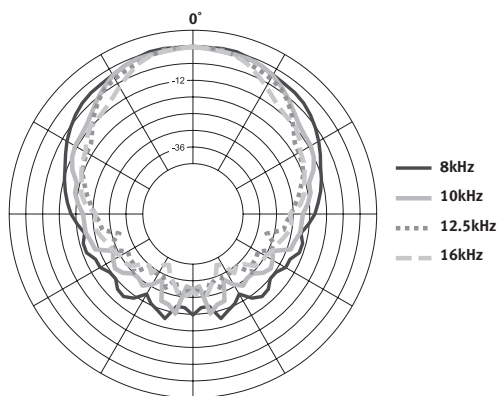
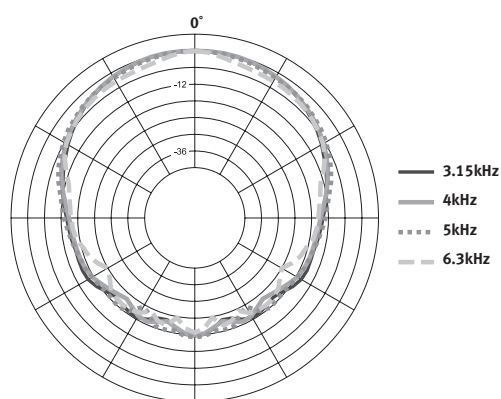
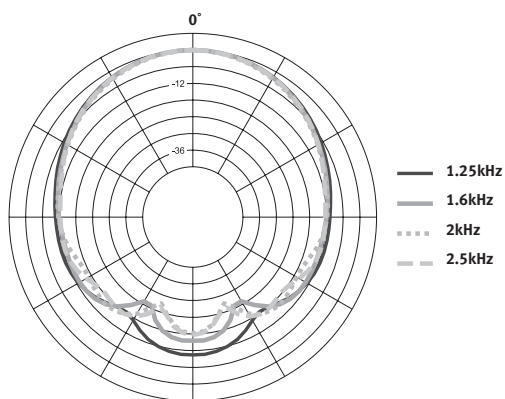
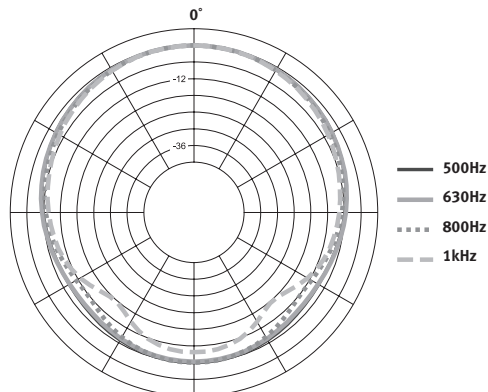
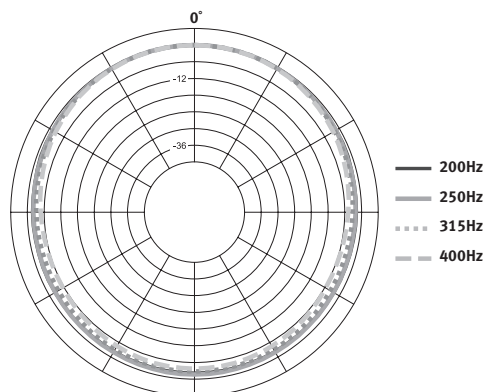
MR5S Compact Two-Way Speaker

Monitor 5S Vertical Polars



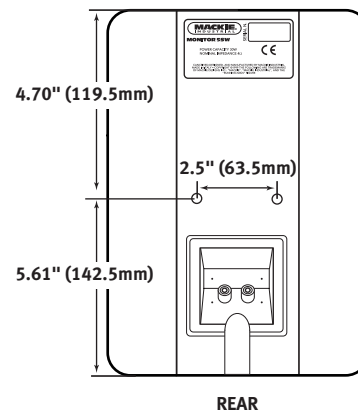
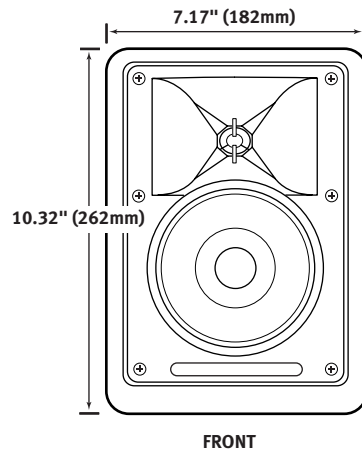
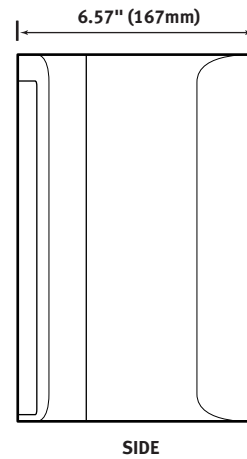
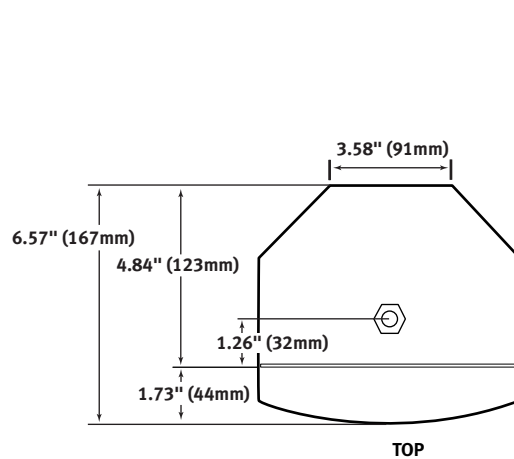
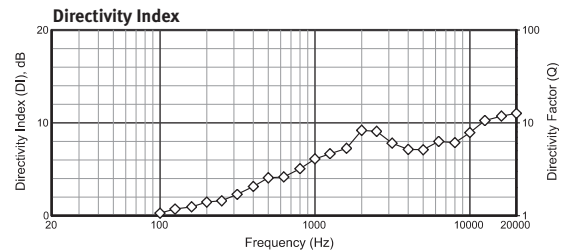
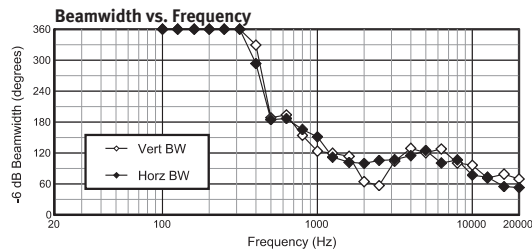
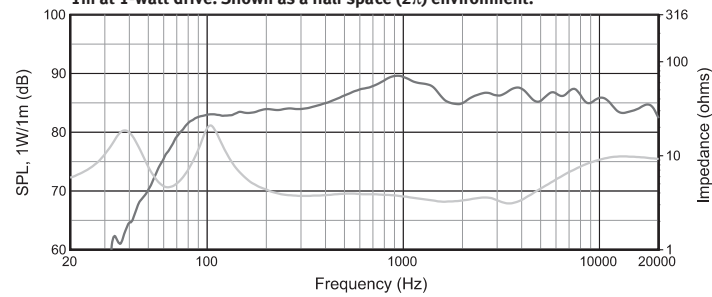
MR5S Compact Two-Way Speaker

Monitor 5S Horizontal Polars



MR5S Compact Two-Way Speaker

Frequency response is measured on-axis at a distance referenced back to 1m at 1-watt drive. Shown as a half space (2π) environment.



MR5S Compact Two-Way Speaker

Architects' and Engineers' Specifications

The two-way loudspeaker system shall be self-contained and consist of the following components: (1) a low-frequency driver; (2) a constant directivity horn driven by a dome tweeter driver; (3) a two-way crossover network; (4) a vented enclosure.

The low-frequency transducer shall be a cone type loudspeaker having a carbon fiber cone with a diameter of at least 5 inches (130mm). The cone shall be fitted with a high compliance foam surround and treated to resist moisture. It shall have a voice coil that is at least 1 inch in diameter and present a nominal 8-ohm load impedance to the crossover network.

The high-frequency section shall consist of a constant directivity horn driven by a soft dome tweeter having a diameter of at least 0.75 inches (19mm). Its voice coil shall be treated with Ferrofluid® to aid in cooling. It shall present a nominal 8-ohm load impedance to the crossover network. The constant directivity horn shall have an integral phase correcting mechanical equalizer.

The system shall be crossed over by an internal, high-level, passive network having a response of 12 dB/octave and equalization for the constant directivity horn. The nominal crossover frequency shall be 2.5kHz. The low-pass section of the network shall have minimum inductance in series with the low-frequency driver. A dynamic high-frequency protection circuit based on a low-value, low-mass filament resistor shall limit the current available to the high-frequency driver. The crossover network shall present a nominal 4-ohm load impedance to the power amplifier.

The enclosure shall be a vented design. It shall be constructed using high density polystyrene and finished with black (or white), scratch resistant paint. It shall be trapezoidal in shape with 45° angled sides. A full size, detachable, perforated steel grille, finished in black (or white) scratch resistant paint shall be provided. At least 4 reinforced threaded metal sockets (3/8" and M6) for attaching optional mounting hardware shall be provided. The overall dimensions of the enclosure shall not exceed (HxWxD) 10.32" x 7.17" x 6.57" (262mm x 182mm x 167mm). The total weight of the loudspeaker shall not exceed 8.6 lbs. (3.9 kg). Connections to the loudspeaker shall be two gold-plated banana jacks.

(continued Architects' & Engineers' Specs)

The loudspeaker system shall have an overall frequency response of at least 65Hz–20kHz when measured to –10 dB and at least 100Hz–19kHz when measured to –3 dB. It shall have a nominal average coverage pattern of at least 105° horizontal by 105° vertical to –6 dB when measured between 800Hz and 16kHz. Calculated 1W/1m sensitivity shall be at least 87 dB when measured in the far field between 300Hz and 3kHz. Maximum SPL shall be at least 112 dB at 1m. The loudspeaker shall be rated for continuous operation at 175W IEC with 700W peaks.

The two-way loudspeaker system shall be a model MR5S (MR5SW - white) manufactured by Mackie Industrial.



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Electronic files for this product available at:
www.mackieindustrial.com

This Specification Sheet

MR5S.PDF

Quick-Start Manual

MR5SQS.PDF

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